

LIFTER OPERATING INSTRUCTIONS



NOTE: Please read the Operating and Technical data sheets for further information on the use of the product.

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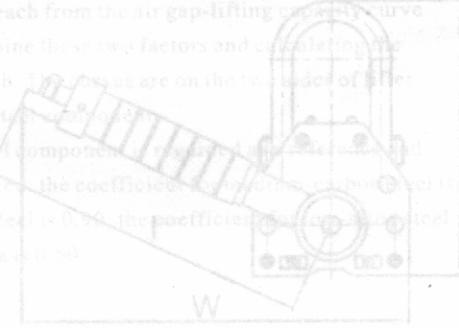
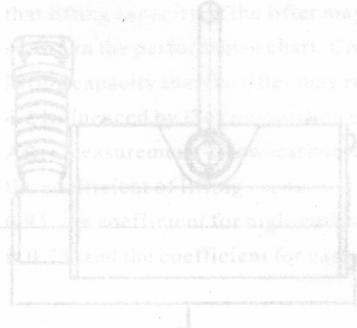
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On each lifting point, what air gap should be maintained. Find out the percentage that lifting force through the lifter may reach from the air gap-lifting capacity curve.

Draw the performance chart. Combine these two factors and calculate the maximum capacity that the lifter may reach. The curves are on the last page of this document. The curves are produced by the following law of statics: $F = \frac{W}{H}$. The measurement of the maximum component of the load is the maximum load. The coefficient of safety for carbon steel is 0.90, the coefficient for stainless steel is 0.70, and the coefficient for cast iron is 0.60.



OPERATING INSTRUCTIONS

NOTE: Please read the Operating Instructions carefully before using this Product. If any doubt remains, please contact our company for further details.

1.APPLICATION AND FEATURES

Permanent Magnetic Lifters Model PML is mainly used for connecting component during lifting and handling operation. They can hoist moving iron block, cylindrical and other magnetic material. They are easy for operation, safe in handling, lightly and ingeniously structured. Hence they are widely used as hoisting devices in factories, docks warehouses and transportation industries. By using them, you can improve your working conditions and increase your working efficiency.

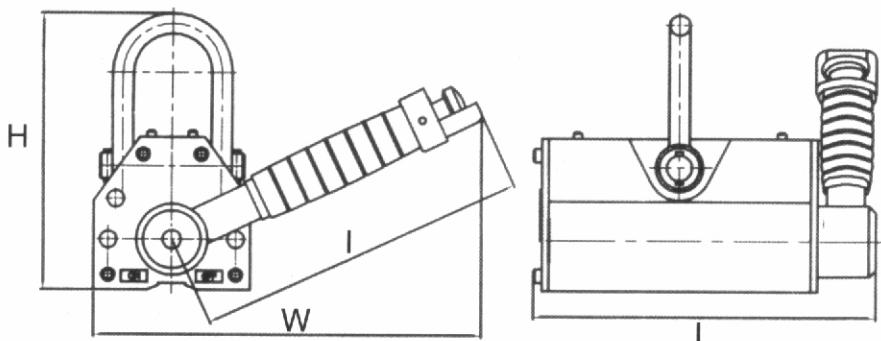
2.CONSTRUCTION AND SPECIFICATION

2.1 construction: MODEL PML Permanent Magnetic Lifter has strong magnetic path produced by NdFeB magnetic materials. On and off of the magnetic path is controlled by turning the manual nozzle. There are shackles on the top of Magnetic Lifting Hoist for lifting, a veto slot on the holding face for holding cylindrical component firmly.

2.2 Specifications

Model	Rated lifting strength	Cylindrical lifting strength	Max pull-off strength	L	W	H	I	Operation temperature	Dead weight
	(kgf)	(kgf)						(°C)	(kg)
PML - 100	100	50	350	62	92	67	126	<80	3
PML - 300	300	150	1050	92	162	91	155	<80	10
PML - 600	600	300	2100	122	232	117	196	<80	24
PML - 1000	1000	500	3500	176	258	163	285	<80	50
PML - 2000	2000	1000	7000	234	378	212	426	<80	125
PML - 3000	3000	1500	10500	286	458	261	521	<80	220
PML - 6000*	6000	3000	21000	430	600	355	180	<80	420

* :PML-6000 can produce according to the customer's request.





3. OPERATIONS

3.1 During operation, you should clear away the components surface such as rust and burr. The centre line of lifter had better overlap with the centerline of component. Then place the Magnetic Lifting Hoist on the face of component, turn the nozzle from “OFF” to “ON” until “holding”. Make sure that the security key on the handle is automatically locked, and then start to hoist.

3.2 During lifting and handing components, overloading is forbidden, Nobody is allowed to pass through under the component held by Magnetic Lifter. Components temperature and ambient temperature shall be between +80°C to -40°C. No strong vibration and impact.

3.3 When lifting and handling cylindrical components, Keeping the cylindrical surface contacting the Vee Slot of lifter on two lines, the actual lifting capacity will generally be 30% of the rated lifting capacity.

3.4 When lifting and handling operation is finished, press down the bottom to disengage the security key from the security pin, then turn the handle “ON” to “OFF” until “Release”. The lifter is now in the neutral condition, it can be taken away from the component.

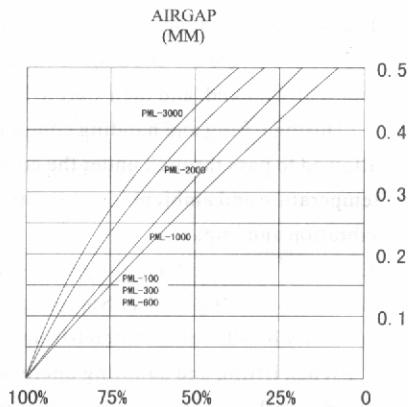
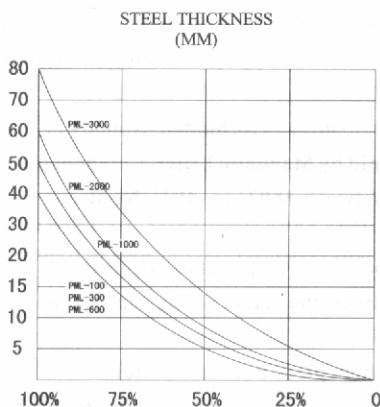
4. Main factors which influence the lifting capacity of permanent Magnetic Lifter.

4.1 Influenced by thickness and surface quality of the component. Before operation, it is necessary to find out the percentage of the steel thickness-lifting capacity according to the thickness of the component and capacity curve (on the following page). If its surface roughness Ra is less than 6.3um, the lifter surface gap will not exist, the lifting capacity will be 100%. If the surface roughness Ra is above 6.3um or even worse, the lifter surface gap should be estimated. Find out the percentage that lifting capacity of the lifter may reach from the air gap-lifting capacity curve shown in the performance chart. Combine these two factors and calculating the lifting capacity that the lifter may reach. The curves are on the two sides of lifter.

4.2 Influenced by the composition of steel component.

After measurement, if low-carbon steel component is regarded as a reference and the coefficient of lifting capacity is fixed: the coefficient for medium-carbon steel is 0.95; the coefficient for high-carbon steel is 0.90; the coefficient for low-alloy steel is 0.75, and the coefficient for cast iron is 0.50.

OPERATING INSTRUCTIONS



Safety capability curve picture

5. Maintenance and safety notice

- 5.1 While carrying and using permanent magnetic lifter beware of the bumping and roughness of surface. So as not to influence its property and life-span. After using, the lifter had better be protected by oil.
- 5.2 Please read the operating instruction carefully and know its property before using this lifter to avoid accident. Please contact our company for further detail.
- 5.3 Check the quality of the handle button frequently. Make sure that that the security key can be moved flexibly and the security pin can be locked firmly.
- 5.4 When Magnetic Lifting Hoist is not in contact with ferromagnetic material of component, don't turn the nozzle.
- 5.5 Maintenance must be strictly according to the instructions by the professional authorized technical personnel.
- 5.6 Prohibit modifying the products to avoid effecting on their safety.
- 5.7 Must take a test for the capability every year and check the safety of all of the components in order to ensure its use capability.
- 5.8 If its main body and turning part is damaged so that it can not work, it should be discarded as useless.